

**Work Order ID 71624**

Thursday, July 07, 2011 10:26:50 AM

Item ID: D4406-041  
Revision ID: PRELIM  
Item Name: Fwd Wearplate Assembly

Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00

Reference:

Approvals: Process Plan: W Date: Tooling: Date:  
QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4406	PA3

100



Waterjet

FLOW CNC Waterjet

341.050

**Memo**

1-Cut as per dwg D4406

prog rev: PA3dwg rev: PA3

2-Deburr if required

0.00

0.00

**SCRAP**

B11-7-7

①

110



QC

Quality Control

QC2- Inspect parts off machine FAI/FAIB

**Memo**

0.00

0.00

B11-7-7

**PRELIMINARY ISSUE**

Page 1

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Run Start



Stop



# Work Order ID 71624

Thursday, July 07, 2011 10:26:50 AM



Page 2

Item ID: D4406-041  
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Accept



Setup Start



Stop



Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:  
QC: Date: SPC (Y/N): Date:

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC8- Inspect parts - second check

0.00 - inspected to PA3



QC

Memo

0.00

Quality Control

Done only  
8/17/10

130

0.00



Small Fab

Memo

0.00

Small Fab

Form as per dwg D4406

SB 4/10/11

①

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

TEST FIT BEFORE WELDING  
PER ATTACHED EMAIL

Flat problem incorrect  
Scrap Parts  
18 11/07/22

**Work Order ID 71624**

Thursday, July 07, 2011 10:26:50 AM

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Accept

Setup Start

Stop

Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: Date:  
QC: Date:

Tooling:




Date:

Run Start

Stop

SPC (Y/N):

Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150		0.00							
									
Large Fab	Memo	0.00							
Large Fab	weld wearplate as per dwg D4406								
160	QC10- Inspect visual per QSI004- ground welds	0.00							
									
QC	Memo	0.00							
Quality Control									
170		0.00							
									
Small Fab	Memo	0.00							
Small Fab	Apply coating as per dwg D4406								

# Work Order ID 71624

Thursday, July 07, 2011 10:26:50 AM

Page 4

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Accept

Setup Start

Stop

Start Date: 7/7/2011 Start Qty: 1.00  
Required Date: 7/14/2011 Req'd Qty: 1.00




Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:  
QC: Date: SPC (Y/N): Date:

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180  QC Quality Control	QC5- Inspect part completeness to step on W/O  Memo	0.00  0.00							
190  Packaging Packaging	Identify as per dwg & Stock Location: _____  Memo	0.00  0.00							
200  QC Quality Control	QC21- Final Inspection - Work Order Release  Memo	0.00  0.00							

FD2385  
POSITIVE RECALL  
EFFECTIVE 7/07/07 AUTH u  
RELEASED \_\_\_\_\_ DATE \_\_\_\_\_

u 1107.25

# Picklist Print

Thursday, July 07, 2011 10:26:47 AM

Work Order ID: 71624

Parent Item: D4406-041

Parent Item Name: Fwd Wearplate Assembly



Start Date: 7/7/2011

Required Date: 7/14/2011

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP rev A 11.06.06 new issue EC verified by:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D4407-1		Manufactured	No			150	Each	2.0000	1	1			
---------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--

Bar

Location	Loc Qty	Loc Code
----------	---------	----------

PRL	2	
70408	2	

M304S18GA		Purchased	No			100	sf	96.8850	3.7	3.894737			
-----------	--	-----------	----	--	--	-----	----	---------	-----	----------	--	--	--

304/316 .050 Sheet

Location	Loc Qty	Loc Code
----------	---------	----------

MAT020	96.885	
113062	13.655	
116979	69	
117653	14.23	

1311-7-7

①

117653

DART AEROSPACE LTD		Work Order: 71624
Description: FWD WEAR PLATE		Part Number: D4406-041
Inspection Dwg: D4406-1 Rev: PA3		Page 1 of 1

# FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

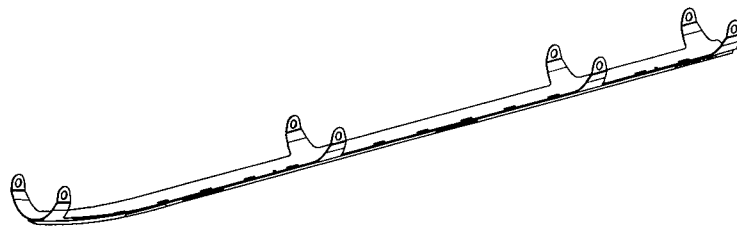
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
.561	±.010	.563	✓		V B02	
.30	±.020	.297	✓		V	
.13	±.030	.129	✓		V	
.88	±.030	.88	✓		V	
.31	±.030	.31	✓		V	
Ø .188	+0.005 - .001	.190	✓		V	
7.97	±.030	7.968	✓		V	
7.372	±.010	7.373	✓		V	
66.06	±.030	66.06	✓		V	
36.00	±.030	36.00	✓		V	
7.00	±.030	7.00	✓		V	
4.10	±.030	4.103	✓		V	
3.63	±.030	3.626	✓		V	
7.203	±.010	7.200	✓		V	
7.86	±.030	7.797	✓		V	
12.745	±.010	12.745	✓		T B02	
37.308	±.010	37.308	✓		T	
1.77	±.030	1.77	✓		V	
63.73	±.030	63.73	✓		V	
2.43	±.030	2.438	✓		V	
1.00	±.010	.048	✓		V	

Measured by: B
Date: 11-7-7

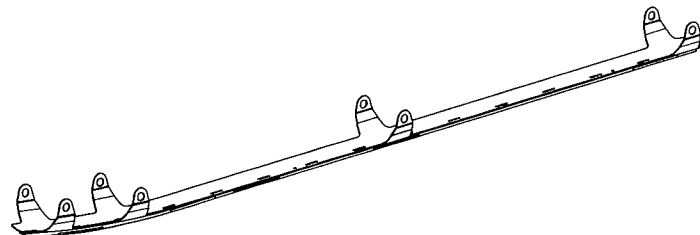
Audited by: S
Date: 11/02/06

Prototype Approval:
Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	



**D4406-041 FWD WEARPLATE ASSY**



**D4406-043 AFT WEARPLATE ASSY**

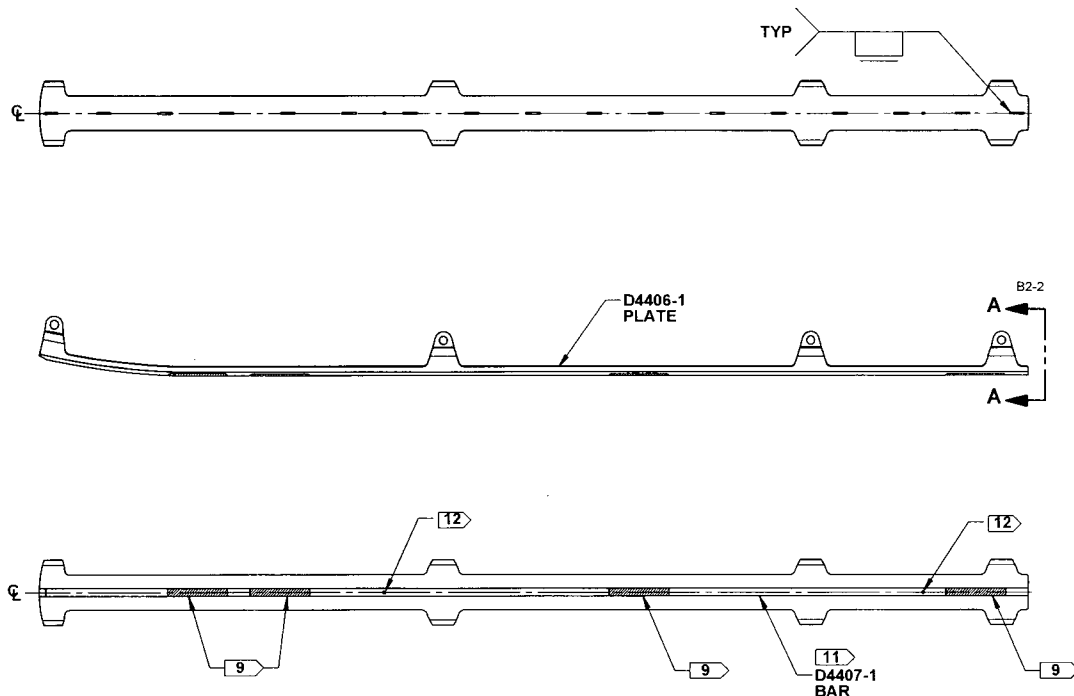
71624

ITEM	QTY -041	QTY -043	P/N	DESCRIPTION
1	X		D4406-041	FWD WEARPLATE ASSY
2		X	D4406-043	AFT WEARPLATE ASSY
3	1		D4406-1	PLATE
4		1	D4406-3	PLATE
5	1		D4407-1	BAR
6		1	D4407-3	BAR
7	A/R	A/R	2059B	HARDCOAT
8	A/R	A/R	4714	PLUS ONE ROCKGUARD (SEE NOTE 11, SHT 2 & 3)

**PRELIMINARY ISSUE**

~~7~~ 11.06.21

PA3	D4406-1F/3F OVERALL LENGTH CHANGE; D4406-3F HOLE LOCATION CHANGE (ZN B3-5) ; ADD NOTE TO TRANSFER DRAIN HOLES		RF	11.06.21
REV.	DESCRIPTION		BY	DATE
DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA		
DRAWN	RF			
CHECKED		DRAWING NO.	REV. PA3	
MFG. APPR.		D4406	SHEET 1 OF 6	
APPROVED		TITLE	SCALE	
DE APPR.		WEARPLATE ASSY	NTS	
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**D4406-041 FWD WEARPLATE ASSY**

C3-2 **SECTION A-A**  
SCALE 2X

**NOTES:**

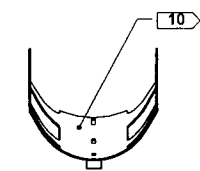
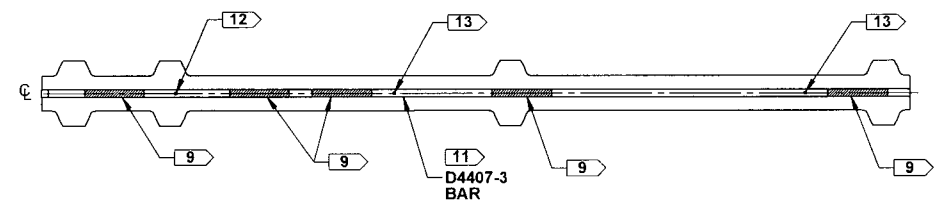
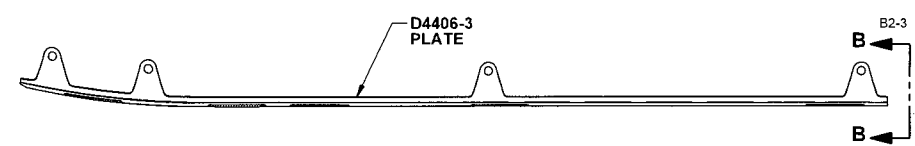
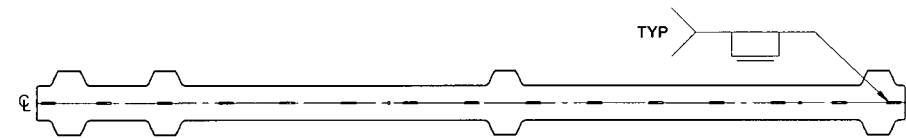
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 010 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 5.12 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D4407-1 BAR ON ALL 3 SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) FORM TO MATCH PROFILE OF D4406-1 AT TIME OF WELDING
- 12) TRANSFER  $\phi 0.188$  HOLES FROM D4406-1 TO D4407-1

**PRELIMINARY ISSUE**

11.06.21

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 2 OF 6
APPROVED		TITLE	SCALE
DE APPR.		<b>WEARPLATE ASSY</b>	NTS
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# **D4406-043 AFT WEARPLATE ASSY**

C3-3

SCALE 2X

## **NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 4.57 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 0.19 THICK x 0.50 WIDE, FLUSH WITH D4407-3 BAR ON ALL 3 SURFACES
- 10) COAT ENTIRE TOP (CONCAVE) SURFACE WITH A LAYER PLUS ONE ROCKGUARD 4714, 0.020-0.040 THICK
- 11) FORM TO MATCH PROFILE OF D4406-3 AT TIME OF WELDING
- 12) FILL TOOLING HOLE WITH WELD ONE PLACE ONLY
- 13) TRANSFER  $\varnothing 0.188$  HOLES FROM D4406-3 TO D4407-3

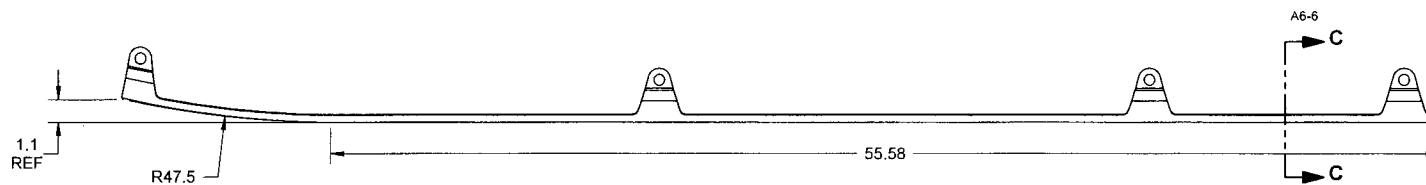
71624

## **PRELIMINARY ISSUE**

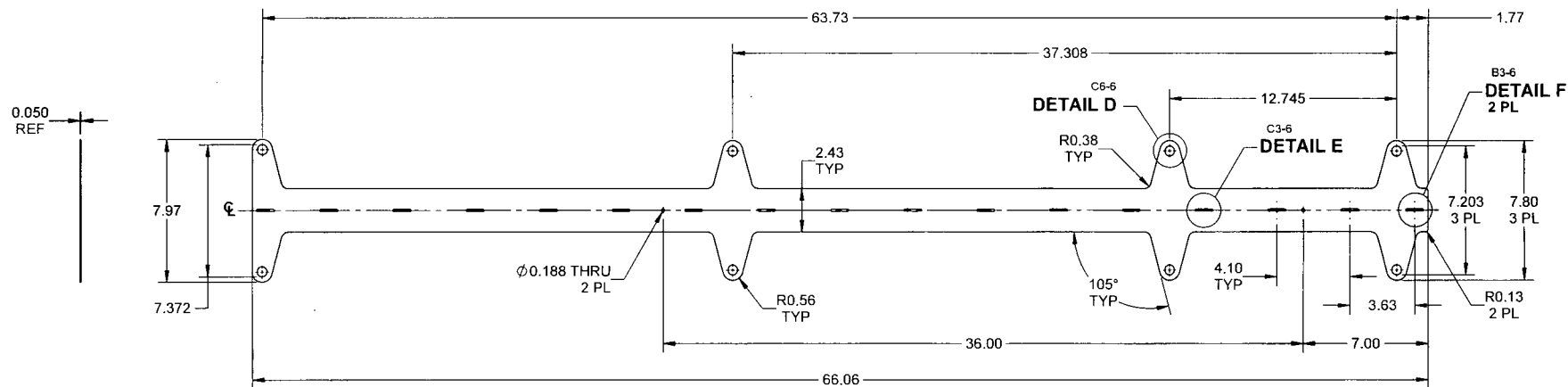
11.06.21

### **SECTION B-B**

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 3 OF 6
APPROVED		TITLE	SCALE
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**D4406-1 PLATE**  
(MAKE FROM D4406-1F)



**D4406-1F FLAT PATTERN**

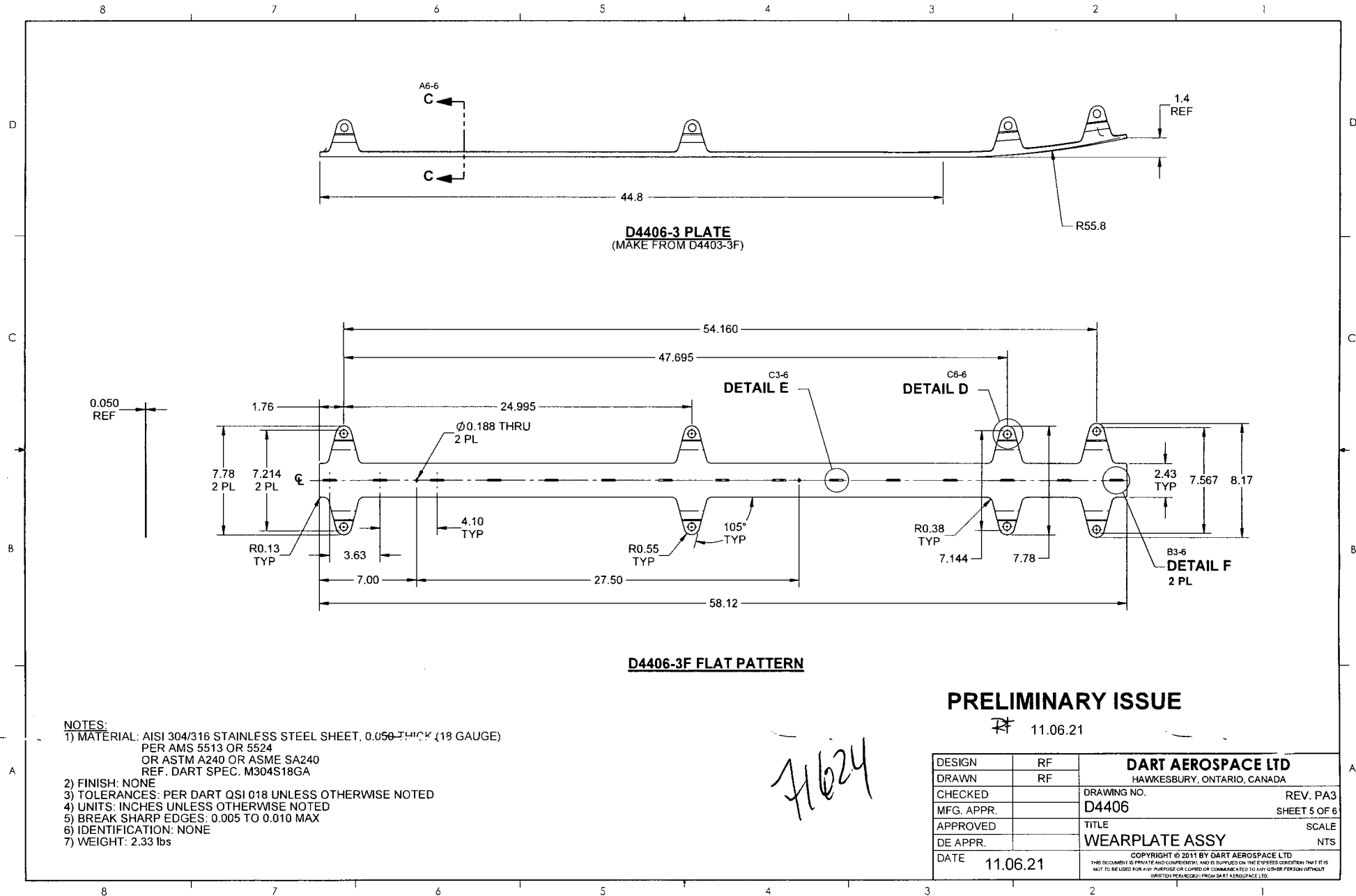
**PRELIMINARY ISSUE**

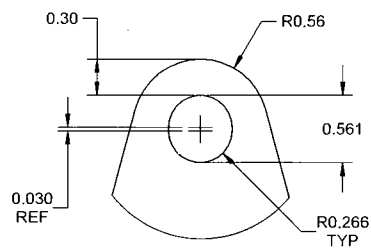
11.06.21

- NOTES:
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 0.050 THICK (18 GAUGE)  
PER AMS 5513 OR 5524  
OR ASTM A240 OR ASME SA240  
REF. DART SPEC. M304S18GA
  - 2) FINISH: NONE
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
  - 6) IDENTIFICATION: NONE
  - 7) WEIGHT: 2.33 lbs

71624

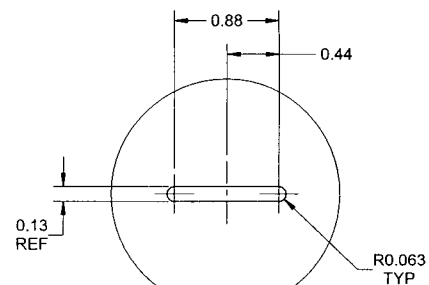
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DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 4 OF 6
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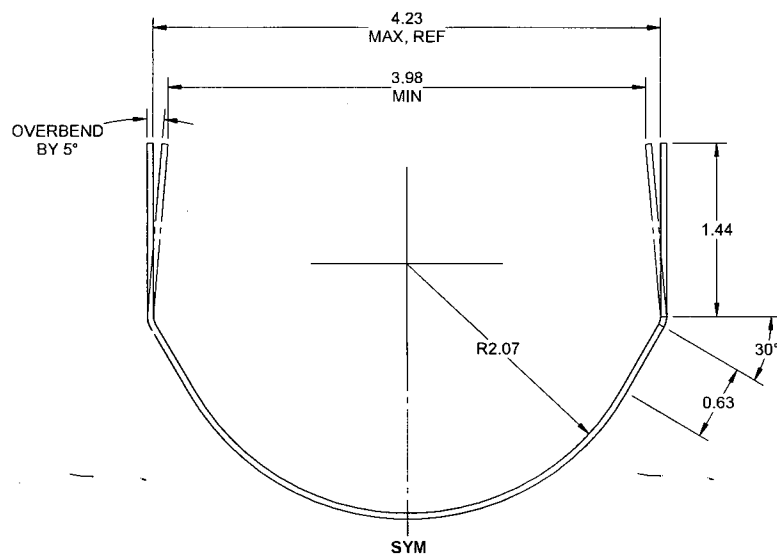
**DETAIL D**  
SLOT DETAIL TYP  
SCALE 6X

C3-4  
C4-5



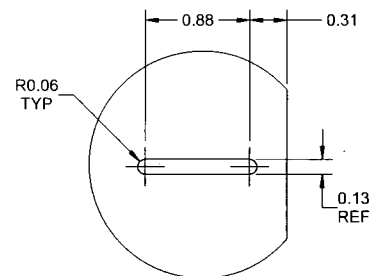
**DETAIL E**  
SLOT DETAIL TYP  
SCALE 6X

C2-4  
C4-5



**DETAIL C**  
DETAIL TYP  
SCALE 6X

D2-4  
D6-5



**DETAIL F**  
SLOT DETAIL TYP  
SCALE 6X

C1-4  
B1-5

**PRELIMINARY ISSUE**

11.06.21

71624

DESIGN	RF	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. PA3
MFG. APPR.		<b>D4406</b>	SHEET 6 OF 6
APPROVED		TITLE	SCALE
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## Linda Lacelle

---

**From:** Jean-Luc Menard <jmenard@dartaero.com>  
**Sent:** July 7, 2011 10:04 AM  
**To:** 'Linda Lacelle'  
**Subject:** RE: 205 wearplate updated drawing posted

Ready to cut, Hanks prel usb has been updated.  
JLM

---

**From:** Linda Lacelle [mailto:llacelle@dartaero.com]  
**Sent:** July 7, 2011 7:50 AM  
**To:** JEANLUC MENARD  
**Subject:** FW: 205 wearplate updated drawing posted

Let me know when good to make  
LL

---

**From:** Roberto Fuentes [mailto:rfuentes@dartaero.com]  
**Sent:** July 6, 2011 4:18 PM  
**To:** David Shepherd  
**Cc:** Eric Charbonneau; David Duval; Kim Johnston; Linda Lacelle ; Mike Petsche; Jean Francois Sauve  
**Subject:** 205 wearplate updated drawing posted

Hi Linda,

I posted new update on 205 wearplate, for second prototype. It is required to do all the part again. My recommendation it is not to weld hardcoat until been check all the hole line-up with the skidtube. The wearplate dxf, pdf and SW file for the bar are in the preliminary folder D4406-PA3 and D4407-PA3. Please do not destroy first prototype for reference for the moment just identify as made from PA2.

Kim,  
Make sure D4406-1/-3/-041 and D4407-1/-3/-043 existing on database please.

Thanks,  
Roberto